

## WEST Search History

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11/16/05  
VBF

DATE: Wednesday, November 16, 2005

Hide?	Set Name	Query	Hit Count
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<input type="checkbox"/>	L1	urease near3 xy	2
<input type="checkbox"/>	L2	urease near3 x	14
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<input type="checkbox"/>	L4	L3 and l2	2
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<input type="checkbox"/>	L7	l5 not l1 not l4	15
<input type="checkbox"/>	L8	felis same (ure or urease or ureb or urea or ure-b or ure-a)	194
<input type="checkbox"/>	L9	felis same (ure or urease or ureb or ure-b or ure-a)	190
<input type="checkbox"/>	L10	felis near10 (ure or urease or ureb or ure-b or ure-a)	65
<input type="checkbox"/>	L11	l8 and (helicobacter or campylobacter)	96
<input type="checkbox"/>	L12	l8 same (helicobacter or campylobacter)	80

END OF SEARCH HISTORY

-continued

( 1 ) SEQUENCE CHARACTERISTICS:  
( A ) LENGTH: 38 base pairs  
( B ) TYPE: nucleic acid  
( C ) STRANDEDNESS: single  
( D ) TOPOLOGY: linear

( 1 1 ) MOLECULE TYPE: DNA (genomic)

( 1 x ) FEATURE:  
( A ) NAME/KEY: misc\_feature  
( B ) LOCATION: 6..11  
( D ) OTHER INFORMATION: /note= "Restriction site PstI."

( x 1 ) SEQUENCE DESCRIPTION: SEQ ID NO:18:

ACGTTCTGCA GATGATACCA AAAAGCAAGG GGGCTTAC

3 8

( 2 ) INFORMATION FOR SEQ ID NO:19:

( 1 ) SEQUENCE CHARACTERISTICS:  
( A ) LENGTH: 2619 base pairs  
( B ) TYPE: nucleic acid  
( C ) STRANDEDNESS: double  
( D ) TOPOLOGY: linear

( 1 1 ) MOLECULE TYPE: DNA (genomic)

( 1 x ) FEATURE:  
( A ) NAME/KEY: misc\_feature  
( B ) LOCATION: 31..36  
( D ) OTHER INFORMATION: /standard\_name= "Shine-Dalgarno  
sequence."

( 1 x ) FEATURE:  
( A ) NAME/KEY: misc\_feature  
( B ) LOCATION: 756..759  
( D ) OTHER INFORMATION: /standard\_name= "Shine-Dalgarno  
sequence."

( x 1 ) SEQUENCE DESCRIPTION: SEQ ID NO:19:

TGATAGCTTG	GCTACCAATA	GAAATTCAAT	AAGGAGTTTA	GGATGAAACT	AACGCCTAAA	60
GAAGTAGACA	AGTTAATGCT	CCATTATGCG	GGCAGATTGG	CAGAAGAACG	CTTGGCGCGT	120
GGTGTGAAAC	TCAATTACAC	CGAAGCGGTC	GCGCTCATT	GCGGGCGTGT	GATGGA AAAAG	180
GCGCGTGATG	GTAATAAAAG	CGTGGCGGAT	TTGATGCAAG	AAGGCAGGAC	TTGGCTTAAA	240
AAAGAAAATG	TGATGGACGG	CGTAGCAAGC	ATGATTCATG	AAGTGGGGAT	TGAAGCTAAC	300
TTCCCCGATG	GAACCAAGCT	TGTAACATC	CACACTCCGG	TAGAGGATAA	TGGCAAATTA	360
GCCCCCGGCG	AGGTCTTCTT	AAAAAATGAG	GACATTACTA	TTAACGCCGG	CAAAGAAGCC	420
ATTAGCTTGA	AAGTGAAAAA	TAAAGGCGAT	CGTCCTGTGC	AGGTGGGATC	ACATTTCCAC	480
TTCTTCGAAG	TGAATAAGCT	CTTGGACTTC	GATCGCGCAA	AAAGCTTTTG	CAAACGCCCTA	540
GACATTGCAT	CTGGAACAGC	GGTGCCTTT	GAACCCGGGG	AGGAAAAAAG	TGTGGA ACTC	600
ATTGACATCG	GCGGGAATAA	GCGCATCTAT	GGCTTTAATT	CTTTGGTGGA	TCGCCAAGCC	660
GATGCCGATG	GTA AAAA ACT	CGGCTTAAAA	GCGCTAAAAG	AAAAAGTTT	TGGGTCTGTA	720
AACTGCGGTT	GTGAAGCGAC	TAAAGATAAA	CAATAAGGAA	AAACCATGAA	AAAGATTTCA	780
CGAAAAGAAT	ATGTTTCTAT	GTATGGTCCC	ACTACCGGGG	ATCGTGTTAG	ACTCGGCGAC	840
ACTGATTTGA	TCTTAGAAGT	GGAGCATGAT	TGCACCACCT	ATGGTGGAAGA	GATCAAATTT	900
GGGGGCGGTA	AAACTATCCG	TGATGGGATG	AGTCAAACCA	ATAGCCCTAG	CTCTTATGAA	960
TTAGATTTGG	TGCTCACTAA	CGCCCTCATT	GTGGACTATA	CGGGCATTTA	CAAAGCCGAC	1020
ATTGGGATTA	AAGACGGCAA	GATTGCAGGC	ATTGGCAAGG	CAGGCAATAA	GGACATGCAA	1080
GATGGCGTAG	ATAATAATCT	TTGCGTAGGT	CCTGCTACAG	AGGCTTTGGC	AGCTGAGGGC	1140

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TTGATTGTAA	CCGCTGGTGG	CATCGATACG	CATATTCAC	TTATCTCTCC	CCAACAAATC	1200
CCTACTGCTT	TTGCCAGCGG	GGTTACAACC	ATGATTGGAG	GAGGCACAGG	ACCTGCGGAT	1260
GGCACGAATG	CGACCACCAT	CACTCCCGGA	CGCGCTAATC	TAAAAAGTAT	GTTGCGTGCA	1320
GCCGAAGAA	ACGCCATGAA	TCTAGGCTTT	TTGGCTAAGG	GGAATGTGTC	TTACGAACCC	1380
TCTTTACGCG	ATCAGATTGA	AGCAGGGGCG	ATTGGTTTTA	AAATCCACGA	AGACTGGGGA	1440
AGCACACCTG	CAGCTATTCA	CCACTGCCTC	AATGTCGCCG	ATGAATACGA	TGTGCAAGTG	1500
GCTATCCACA	CCGATACCCT	TAACGAGGCG	GGCTGTGTAG	AAGACACCCT	AGAGGCGATT	1560
GCCGGGCGCA	CCATCCATAC	CTTCCACACT	GAAGGGGCTG	GGGGTGGACA	CGCTCCAGAT	1620
GTTATCAAAA	TGGCAGGGGA	ATTTAACATT	CTACCCGCCT	CTACTAACCC	GACCATTCTT	1680
TTCACCAAAA	ACACTGAAGC	CGAGCACATG	GACATGTTAA	TGGTGTGCCA	CCACTTGGAT	1740
AAAAGTATCA	AGGAAGATGT	GCAGTTTGCC	GATTGAGGGA	TTGCCCCCA	AACTATCGCG	1800
GCTGAAGACC	AACTCCATGA	CATGGGGATC	TTTTCTATCA	CCAGCTCCGA	CTCTCAGGCT	1860
ATGGGACGCG	TAGGCGAGGT	GATCACACGC	ACTTGGCAGA	CAGCAGACAA	AAACAAAAAA	1920
GAGTTTGGGC	GCTTGAAAGA	GGAAAAAGGC	GATAACGACA	ACTTCCGCAT	CAAACGCTAC	1980
ATCTCTAAAT	ACACCATCAA	CCCCGGGATC	GCGCATGGGA	TTTCTGACTA	TGTGGGCTCT	2040
GTGGAAGTGG	GCAAAATACG	CGACCTCGTG	CTTTGGAGTC	CGGCTTTCTT	TGGCATTAA	2100
CCCAATATGA	TTATTAAGGG	CGGATTTATT	GCGCTCTCTC	AAATGGGCGA	TGCCAATGCG	2160
TCTATTCCCA	CCCCTCAGCC	CGTCTATTAC	CGTGAAATGT	TTGGACACCA	TGGGAAAAAC	2220
AAATTTCGACA	CCAATATCAC	TTTCGTGTCC	CAAGCGGCTT	ACAAGGCAGG	GATCAAAGAA	2280
GAACTAGGGC	TAGATCGCGC	GGCACCGCCA	GTGAAAAACT	GTCGCAATAT	CACTAAAAAG	2340
GACCTCAAAT	TCAACGATGT	GACCGCACAT	ATTGATGTCA	ACCCTGAAAC	CTATAAGGTG	2400
AAAGTGGATG	GCAAAGAGGT	AACCTCTAAA	GCAGCAGATG	AATTGAGCCT	AGCGCAACTT	2460
TATAATTTGT	TCTAGGAGGC	TAAGGAGGGG	GATAGAGGGG	GTTAATTTAG	AGGGGAGTCA	2520
TTGATTTACC	TTTGCTAGTT	TATAATGGAT	TTAAGAGAGG	TTTTTTTTCG	TGTTTTATAC	2580
CGCGTTGAAA	CCCTCAAATC	TTTACCAAAA	GGATGGTAA			2619

( 2 ) INFORMATION FOR SEQ ID NO:20:

( i ) SEQUENCE CHARACTERISTICS:

( A ) LENGTH: 237 amino acids

( B ) TYPE: amino acid

( C ) STRANDEDNESS: single

( D ) TOPOLOGY: linear

( ii ) MOLECULE TYPE: peptide

( ix ) FEATURE:

( A ) NAME/KEY: Protein

( B ) LOCATION: 1..237

( D ) OTHER INFORMATION: /note= "URE A - FIGURE 3."

( xi ) SEQUENCE DESCRIPTION: SEQ ID NO:20:

Met	Lys	Leu	Thr	Pro	Lys	Glu	Leu	Asp	Lys	Leu	Met	Leu	His	Tyr	Ala
1				5					10					15	
Gly	Arg	Leu	Ala	Glu	Glu	Arg	Leu	Ala	Arg	Gly	Val	Lys	Leu	Asn	Tyr
			20					25					30		
Thr	Glu	Ala	Val	Ala	Leu	Ile	Ser	Gly	Arg	Val	Met	Glu	Lys	Ala	Arg
		35					40				45				
Asp	Gly	Asn	Lys	Ser	Val	Ala	Asp	Leu	Met	Glu	Glu	Gly	Arg	Thr	Trp
	50					55					60				

-continued

## ( 2 ) INFORMATION FOR SEQ ID NO:22:

- ( i ) SEQUENCE CHARACTERISTICS:  
 ( A ) LENGTH: 237 amino acids  
 ( B ) TYPE: amino acid  
 ( C ) STRANDEDNESS: single  
 ( D ) TOPOLOGY: linear

( i i ) MOLECULE TYPE: protein

( x i ) SEQUENCE DESCRIPTION: SEQ ID NO:22:

```

Met Lys Leu Thr Pro Lys Glu Leu Asp Lys Leu Met His Tyr Ala Gly
 1      5      10      15
Glu Leu Ala Lys Lys Arg Lys Glu Lys Gly Ile Lys Leu Asn Tyr Val
 20      25      30
Glu Ala Val Ala Leu Ile Ser Ala His Ile Met Glu Glu Ala Arg Ala
 35      40      45
Gly Lys Lys Thr Ala Ala Glu Leu Met Gln Glu Gly Arg Thr Leu Leu
 50      55      60
Lys Pro Asp Asp Val Met Asp Gly Val Ala Ser Met Ile His Glu Val
 65      70      75      80
Gly Ile Glu Ala Met Phe Pro Asp Gly Thr Lys Leu Val Thr Val His
 85      90      95
Thr Pro Ile Glu Ala Asn Gly Lys Leu Val Pro Gly Glu Leu Phe Leu
100      105      110
Lys Asn Glu Asp Ile Thr Ile Asn Glu Gly Lys Lys Ala Val Ser Val
115      120      125
Lys Val Lys Asn Val Gly Asp Arg Pro Val Gln Ile Gly Ser His Phe
130      135      140
His Phe Phe Glu Val Asn Arg Cys Leu Asp Phe Asp Arg Glu Lys Thr
145      150      155      160
Phe Gly Lys Arg Leu Asp Ile Ala Ser Gly Thr Ala Val Arg Phe Glu
165      170      175
Pro Gly Glu Glu Lys Ser Val Glu Leu Ile Asp Ile Gly Gly Asn Arg
180      185      190
Arg Ile Phe Gly Phe Asn Ala Leu Val Asp Arg Gln Ala Asp Asn Glu
195      200      205
Ser Lys Lys Ile Ala Leu His Arg Ala Lys Glu Arg Gly Phe His Gly
210      215      220
Ala Lys Ser Asp Asp Asn Tyr Val Lys Thr Ile Lys Glu
225      230      235

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## ( 2 ) INFORMATION FOR SEQ ID NO:23:

- ( i ) SEQUENCE CHARACTERISTICS:  
 ( A ) LENGTH: 100 amino acids  
 ( B ) TYPE: amino acid  
 ( C ) STRANDEDNESS: single  
 ( D ) TOPOLOGY: linear

( i i ) MOLECULE TYPE: protein

( x i ) SEQUENCE DESCRIPTION: SEQ ID NO:23:

```

Met Glu Leu Thr Pro Arg Glu Lys Asp Lys Leu Leu Leu Phe Thr Ala
 1      5      10      15
Gly Leu Val Ala Glu Arg Arg Leu Ala Lys Gly Leu Lys Leu Asn Tyr
 20      25      30
Pro Glu Arg Val Ala Leu Ile Ser Cys Ala Ile Met Glu Gly Ala Arg
 35      40      45
Glu Gly Lys Thr Val Ala Glu Leu Met Ser Glu Gly Arg Thr Val Leu

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-continued

50 55 60  
 Thr Ala Glu Gln Val Met Glu Gly Val Pro Glu Met Ile Lys Asp Val  
 65 70 75 80  
 Glu Val Glu Cys Thr Phe Pro Asp Gly Thr Lys Leu Val Ser Ile His  
 85 90 95  
 Ser Pro Ile Val  
 100

## (2) INFORMATION FOR SEQ ID NO:24:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 109 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Met Ile Pro Gly Glu Ile Arg Val Asn Ala Ala Leu Gly Asp Ile Glu  
 1 5 10 15  
 Leu Asn Ala Gly Arg Glu Thr Lys Thr Ile Gln Val Ala Asn His Gly  
 20 25 30  
 Asp Arg Pro Val Gln Cys Gly Ser His Tyr His Phe Tyr Glu Val Asn  
 35 40 45  
 Glu Ala Leu Arg Phe Ala Arg Lys Glu Thr Leu Gly Phe Arg Leu Asn  
 50 55 60  
 Ile Pro Ala Gly Met Ala Val Arg Phe Glu Pro Gly Gln Ser Arg Thr  
 65 70 75 80  
 Val Asp Glu Leu Val Ala Phe Ala Gly Lys Arg Glu Ile Tyr Gly Phe  
 85 90 95  
 His Gly Lys Val Met Gly Lys Leu Glu Ser Glu Lys Lys  
 100 105

## (2) INFORMATION FOR SEQ ID NO:25:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 840 amino acids  
 (B) TYPE: amino acid  
 (C) STRANDEDNESS: single  
 (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

Met Lys Leu Ser Pro Arg Glu Val Glu Lys Leu Gly Leu His Asn Ala  
 1 5 10 15  
 Gly Tyr Leu Ala Gln Lys Arg Leu Ala Arg Gly Val Arg Leu Asn Tyr  
 20 25 30  
 Thr Glu Ala Val Ala Leu Ile Ala Ser Gln Ile Met Glu Tyr Ala Arg  
 35 40 45  
 Asp Gly Glu Lys Thr Val Ala Gln Leu Met Cys Leu Gly Gln His Leu  
 50 55 60  
 Leu Gly Arg Arg Gln Val Leu Pro Ala Val Pro His Leu Leu Asn Ala  
 65 70 75 80  
 Val Gln Val Glu Ala Thr Glu Pro Asp Gly Thr Lys Leu Val Thr Val  
 85 90 95  
 His Asp Pro Ile Ser Arg Glu Asn Gly Glu Leu Gln Glu Ala Leu Phe  
 100 105 110  
 Gly Ser Leu Leu Pro Val Pro Ser Leu Asp Lys Phe Ala Glu Thr Lys

M  
E  
N  
U

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Search Results - Record(s) 1  
through 2 of 2 returned.

☐ 1. 20040005325. 13 Jul  
01. 08 Jan 04. Helicobacter felis  
vaccine. Kusters, Johannes  
Gerardus, et al. 424/184.1;  
A61K039/00 A61K039/38.

☐ 2. EP 1176192A. Novel  
Helicobacter felis urease X and  
Y subunit polypeptides, useful  
in the diagnosis of Helicobacter  
felis infections and in the  
preparation of vaccines.  
CATTOLI, G, et al.  
A61K038/00 A61K039/00  
A61K039/106 A61K039/118  
A61K039/12 A61K039/175  
A61K039/23 A61K039/235  
A61K039/38 A61K039/39  
A61K039/395 A61K048/00  
A61P001/04 A61P031/04  
C07K014/195 C07K014/205  
C07K016/12 C12N001/15  
C12N001/19 C12N001/21  
C12N005/10 C12N009/80  
C12N015/09 C12N015/52  
C12N015/55 C12Q001/68  
G01N033/15 G01N033/50  
G01N033/53 G01N033/566  
G01N033/569 G01N033/68  
C12N009/80 C12Q001/68  
C12R001:01 C12R001:01.

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Term

UREASE

UREASES

XY

XIES

First Hit

## End of Result Set

L1: Entry 2 of 2 File: DWPI Jul 7, 2005

DERWENT-ACC-NO: 2002-124384

DERWENT-WEEK: 200551

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TITLE: Novel Helicobacter felis urease X  
and Y subunit polypeptides, useful in the  
diagnosis of Helicobacter felis  
infections and in the preparation of  
vaccines

INVENTOR: CATTOLI, G; KUSTERS, J G

PATENT-ASSIGNEE: AKZO NOBEL NV (ALKU),  
CATTOLI G (CATTI), KUSTERS J G (KUSTI)

PRIORITY-DATA: 2000EP-0202565 (July 17,  
2000)

Search Selected

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## PATENT-FAMILY:

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<input type="checkbox"/> <u>AU 782172</u>	July 7,		000	C12N01
<input type="checkbox"/> <u>B2</u>	2005			
<input type="checkbox"/> <u>EP 1176192</u>	January		076	C12N00
<input type="checkbox"/> <u>A2</u>	30, 2002	E		
<input type="checkbox"/> <u>AU</u>	January		000	C12N01
<input type="checkbox"/> <u>200154321 A</u>	24, 2002			
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<input type="checkbox"/> <u>JP</u>	December		149	C12N01
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<input type="checkbox"/> <u>B1</u>	1, 2003	E		
<input type="checkbox"/> <u>DE 60100879</u>	November		000	C12N00
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<input type="checkbox"/> <u>T3</u>	2004			

DESIGNATED-STATES: AL AT BE CH CY DE DK

Entry 6 of 14

File: USPT

Aug 13, 1996

DOCUMENT-IDENTIFIER: US 5545558 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Selection of chiral .alpha.-hydroxyketones and derivatives using lipase

Brief Summary Text (44):

Lipase from hog pancreas, lipase type XIII from Pseudomonas sp., lipase type II from porcine pancreas, lipase AK from Pseudomonas sp., lipase PS-30 from Pseudomonas cepacia, lipase CES from Pseudomonas sp., lipase AP-6 from Aspergillus niger, lipase AP-12 from Aspergillus niger, lipase PS-30 from Pseudomonas cepacia, lipase AK from Pseudomonas sp., PLE-A-Amano from porcine liver, LPL-50S from Amano (Pseudomonas sp.), LPL-80 from Amano (Pseudomonas sp.), LPL-200S from Amano (Pseudomonas sp.), .beta.-glucuronidase from bovine liver, enterokinase from bovine intestine, urease Type X from Bacillus pasteurii, and esterase type I from porcine liver.

## CLAIMS:

8. A process for the preparation of an ester of a chiral .alpha.-hydroxyketone of the formula ##STR11## wherein: R is selected from the group consisting of phenyl and substituted phenyl;

R.sup.1 is hydrogen and R.sup.2 is alkyl;

R.sup.3 is a carboxylic acyl group of the formula R.sup.4 --C(O)--;

R.sup.4 is alkyl or substituted alkyl;

which comprises:

selectively esterifying a racemic .alpha.-hydroxyketone of the formula ##STR12## wherein R, R.sup.1 and R.sup.2 are as defined above, with an esterifying agent in the presence of an enzyme that favors the preparation of one enantiomer, wherein the enzyme is selected from the group consisting of porcine pancreatic lipase, Lipase from Pseudomonas, Lipase from Aspergillus niger, Lipase Type II from porcine pancreas, Esterase Type I from Porcine liver, .beta.-Glucuronidase from Bovine liver, Enterokinase from Bovine intestine, Urease Type X from Bacillus pasteurii, and PLE-A from Porcine liver;

and isolating said chiral ester thereof.

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**Search Results - Record(s) 1 through 14 of 14 returned.**

- 
- ☐ 1. [20050163745](#). 17 Jul 03. 28 Jul 05. Biodegradable targetable microparticle delivery system. Sokoll, Kenneth K., et al. 424/78.37; 525/54.1 A61K031/785.
- 
- ☐ 2. [20040005325](#). 13 Jul 01. 08 Jan 04. Helicobacter felis vaccine. Kusters, Johannes Gerardus, et al. 424/184.1; A61K039/00 A61K039/38.
- 
- ☐ 3. [20030068317](#). 19 Apr 02. 10 Apr 03. High capacity methods for separation, purification, concentration, immobilization and synthesis of compounds and applications based thereupon. Lee, William, et al. 424/140.1; 435/287.2 435/6 435/7.9 C12Q001/68 G01N033/53 G01N033/542 A61K039/395 C12M001/34.
- 
- ☐ 4. [6623764](#). 31 Aug 99; 23 Sep 03. Biodegradable targetable microparticle delivery system. Sokoll; Kenneth K., et al. 424/501; 424/78.37 528/318 528/329.1. A61K009/16 A61K047/34 C08G063/08.
- 
- ☐ 5. [5968508](#). 19 Jul 95; 19 Oct 99. Antagonists to insulin receptor tyrosine kinase inhibitor. Goldfine; Ira D., et al. 424/130.1; 424/141.1 530/387.1 530/388.1. A61K039/395 C07K016/00.
- 
- ☐ 6. [5545558](#). 29 Mar 94; 13 Aug 96. Selection of chiral .alpha.-hydroxyketones and derivatives using lipase. Gala; Dinesh. 435/280; 435/135 435/136. C12P041/00.
- 
- ☐ 7. [4954156](#). 17 Jan 89; 04 Sep 90. N,N-dihalo-2-imidazolidinones and N-halo-2-oxazolidinones as urease and nitrification inhibitors. Gautney; Joe, et al. 71/28; 71/29 71/30 71/902 71/903. C05G003/08.
- 
- ☐ 8. [4317881](#). 26 Mar 80; 02 Mar 82. Process for producing cyclodextrins. Yagi; Yoshiaki, et al. 435/97; 435/193 435/859. C12N009/10 C12P019/18.
- 
- ☐ 9. [4288552](#). 11 Apr 79; 08 Sep 81. Immobilized intracellular enzymes. Gestrelus; Stina M.. 435/174; 435/175 435/177 435/180 435/822 435/832 435/911. C12N011/00 C12N011/16 C12N011/02.
- 
- ☐ 10. [4108727](#). 23 Aug 76; 22 Aug 78. Method, composition and device for determining the specific gravity or osmolality of a liquid. Stiso; Sisto Nicholas, et al. 435/12; 422/58 426/231 435/14 435/18 435/805. G01N031/14.
- 
- ☐ 11. [EP000649906A1](#). 06 Oct 89. 26 Apr 95. Nucleotide sequences coding for a protein with urease activity.. LABIGNE, AGNES. C12N015/55; C12N009/80 C12Q001/68 G01N033/569.
- 
- ☐ 12. [EP 1176192A](#). Novel Helicobacter felis urease X and Y subunit polypeptides, useful in the diagnosis of Helicobacter felis infections and in the preparation of vaccines. CATTOLI, G, et al. A61K038/00 A61K039/00 A61K039/106 A61K039/118 A61K039/12 A61K039/175 A61K039/23 A61K039/235 A61K039/38 A61K039/39 A61K039/395 A61K048/00 A61P001/04 A61P031/04 C07K014/195 C07K014/205 C07K016/12 C12N001/15 C12N001/19 C12N001/21 C12N005/10 C12N009/80 C12N015/09 C12N015/52 C12N015/55 C12Q001/68 G01N033/15 G01N033/50 G01N033/53 G01N033/566 G01N033/569 G01N033/68 C12N009/80 C12Q001/68 C12R001:01 C12R001:01.
-



☐ 13. 3519538. 07 Jul 70. CHEMICALLY COUPLED ENZYMES. MESSING RALPH A; WEETALL HOWARD H. 435/176; 530/811.

☐ 14. 3328452. 27 Jun 67. Thiosulfoalkanoate compounds. DICKINSON WILLIAM B. 560/307;.

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Term	Documents
UREASE	9296
UREASES	301
X	3670466
XES	6616
(UREASE NEAR3 X).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	14
(UREASE NEAR3 X).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	14

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DOCUMENT-IDENTIFIER: US 20040241175 A1  
TITLE: Antigen targeting

Detail Description Paragraph:

[0078] SEQ. ID. NO. 10 Helicobacter felis urease B

DOCUMENT-IDENTIFIER: US 20040005325 A1

TITLE: *Helicobacter felis* vaccineAbstract Paragraph:

The present invention relates to novel *Helicobacter felis* urease subunit polypeptides and to nucleic acid sequences encoding these subunit polypeptides, to DNA fragments and recombinant DNA molecules comprising the nucleic acid sequences encoding these subunit polypeptides, to live recombinant carriers and to host cells comprising nucleic acid sequences encoding these subunit polypeptides. Also, the invention relates to the subunit polypeptides for use in vaccines and the use in the manufacturing thereof, to vaccines comprising said subunit polypeptides and to methods for the preparation of such vaccines. Furthermore, the invention relates to diagnostic methods for the detection of *Helicobacter felis* specific nucleic acid sequences, *Helicobacter felis* antigenic material and to antibodies against *Helicobacter felis*.

Summary of Invention Paragraph:

[0002] Several *Helicobacter* species are the cause of pathogenesis of the gastric epithelium. *Helicobacter pylori*, and to a lesser extent *H. heilmannii* are known to cause gastritis, a major factor in the development of peptic ulcers and gastric lymphoma in humans. *Helicobacter felis* is most likely the cause of gastric infections in both cats and dogs. In order to survive the highly acidic environment of the stomach, members of the *Helicobacter* family produce an urease that is capable of hydrolysing the urea present in gastric juice. This hydrolysis sets free an amount of NH<sub>3</sub> that suffices to neutralise the environment of the bacterium. It is known, that the urease plays a role in the colonisation of the bacterium as well as in its pathogenesis.

Summary of Invention Paragraph:

[0003] Genes encoding urease have been described and sequenced for both *Helicobacter pylori* (Labigne et al., J. Bacteriol. 173: 1920-1931 (1991)) and *Helicobacter felis* (Ferrero et al., Molec. Microbiol. 9, 323-333 (1993)). Of the seven genes involved in urease expression and secretion, only two genes encode the two structural subunits urease A and B of the urease enzyme; *ureA* and *ureB*. These two polypeptides form a polypeptide complex having urease activity.

Summary of Invention Paragraph:

[0006] It is i.a. an object of the present invention to provide a *H. felis* urease which is able to induce protection against *Helicobacter felis* infection in dogs and cats. It was surprisingly found now, that in *H. felis* a second urease exists, of which the genes encoding the structural subunits share only low homology with the known *H. felis ureA* and B genes. The novel urease is named ureaseXY, in order to discriminate it from the known urease AB. The newly found urease has been discovered in *H. felis*, and is not present in *H. pylori*.

Summary of Invention Paragraph:

[0007] The overall genetic structure of the genes encoding the two structural urease subunits, *UreX* and *UreY* is comparable to that of the known *UreA* and B in *H. felis* and *H. pylori*. The sequence homology is however surprisingly low. It was even more surprisingly found, that the homology between the *ureA* and B genes and the novel *ureX* and Y genes in one single *H. felis* strain is even strikingly lower than the homology between the various *ureA* and B genes from the various *Helicobacter* species.

Summary of Invention Paragraph:

[0008] Table 1a, 1b and 1c show the comparison of the *ureX* and Y gene and the polypeptides they encode from five different *Helicobacter felis* species, with the *ureA* and B genes and polypeptides from *Helicobacter felis*, *pylori* and *heilmannii*.



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CAMPYLOBACTERS	89
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(L8 SAME (HELICOBACTER OR CAMPYLOBACTER)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	80

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### Entry information

Entry name **Q5V6A2\_HALMA**  
 Primary accession number **Q5V6A2**  
 Secondary accession numbers **None**  
 Entered in TrEMBL in **Release 29, February 2005**  
 Sequence was last modified in **Release 29, February 2005**  
 Annotations were last modified in **Release 29, February 2005**

### Name and origin of the protein

Protein name **Urease subunit**  
 Synonym **EC 3.5.1.5**

Gene name

**Name: ureX**

OrderedLocusNames: pNG7249

From

Haloarcula marismortui (Halobacterium marismortui)

[TaxID  
2238]

Encoded on

Plasmid pNG700.

Taxonomy

Archaea; Euryarchaeota; Halobacteria; Halobacteriales; Halobacteriaceae; Haloarcula.

### References

[1] NUCLEOTIDE SEQUENCE.

**STRAIN=ATCC 43049;**

DOI=10.1101/gr.2700304; PubMed=15520287 [NCBI, ExPASy, EBI, Israel, Japan]

Baliga N.S., Bonneau R., Facciotti M.T., Pan M., Glusman G., Deutsch E.W., Shannon P.Y., Weng R.S., Gan R.R., Hung P., Date S.V., Marcotte E., Hood L., Ng W.V.;

"Genome sequence of Haloarcula marismortui: a halophilic archaeon from the Dead Sea." Genome Res. 14:2221-2234(2004).

### Comments

None

### Cross-references

EMBL **AY596296; AAV44950.1; -;** [\[EMBL / GenBank / DDBJ\]](#)  
**Genomic\_DNA.** [\[CoDingSequence\]](#)

CMR **Q5V6A2; pNG7249.**

**GO:0016787;**

**Molecular function: hydrolase activity (inferred from electronic**



*annotation).*

GO GO:0009039; Molecular function: urease activity (*inferred from electronic annotation*).

QuickGo view.

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Graphical view of domain structure.

Pfam PF01979; Amidohydro\_1; 1.  
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Pfam graphical view of domain structure.

ProDom PD001248; Amidohydro\_like; 1.  
[Domain structure / List of seq. sharing at least 1 domain]

HOGENOM [Family / Alignment / Tree]

ProtoMap Q5V6A2.

PRESAGE Q5V6A2.

ModBase Q5V6A2.

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**Keywords****Complete proteome; Hydrolase; Plasmid.****Features**

None

**Sequence information**

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***Search in UniProtKB/Swiss-Prot: There are matches to 2 out of 197228 entries***

**URE2\_HELFE (Q08716)**

Urease beta subunit (EC 3.5.1.5) (Urea amidohydrolase). {GENE: Name=ureB} - Helicobacter felis

**UREA\_HELFE (Q08715)**

Urease alpha subunit (EC 3.5.1.5) (Urea amidohydrolase alpha subunit). {GENE: Name=ureA} - Helicobacter felis

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***Search in UniProtKB/TrEMBL: There are matches to 4 out of 2342938 entries***

**Q8KIZ7\_HELFE**

Urease UreA (Fragment) {GENE:Name=ureA} - Helicobacter felis

**Q8KT24\_HELFE**

Urease UreB (Fragment) {GENE:Name=ureB} - Helicobacter felis

**Q9R5F5\_HELFE**

Urease small subunit (Fragment) - Helicobacter felis

**Q9RGP5\_HELFE**

Urease (Fragment) {GENE:Name=ureB} - Helicobacter felis

Int J Syst Bacteriol. 1991 Jan;41(1):31-8.

Related Articles, Links

**Phylogeny of *Helicobacter felis* sp. nov., *Helicobacter mustelae*, and related bacteria.****Paster BJ, Lee A, Fox JG, Dewhirst FE, Tordoff LA, Fraser GJ, O'Rourke JL, Taylor NS, Ferrero R.**

Forsyth Dental Center, Boston, Massachusetts 02115.

Strain CS1T (T = type strain) is a gram-negative, microaerophilic, urease-positive, spiral-shaped bacterium that was isolated from the gastric mucosa of a cat. Additional strains which possessed biochemical and ultrastructural characteristics similar to those of strain CS1T were isolated from the gastric mucosa of cats and dogs. The guanine-plus-cytosine content of the DNA of strain CS1T was 42.5 mol%. The 16S rRNA sequences of strain CS1T, strain DS3 (a spiral-shaped isolate from a dog), and *Helicobacter mustelae* were determined by direct RNA sequencing, using a modified Sanger method. These sequences were compared with the 16S rRNA sequences of *Helicobacter pylori*, "*Flexispira rappini*," *Wolinella succinogenes*, and 11 species of campylobacters. A dendrogram was constructed based upon sequence similarities. Strains CS1T and DS3 were very closely related (level of similarity, 99.3%). Two major phylogenetic groups were formed; one group consisted of strains CS1T and DS3, *H. mustelae*, *H. pylori*, "*F. rappini*," and *W. succinogenes*, and the other group contained the true campylobacters. The average level of similarity between members of these two groups was 84.9%. Within the first group, strains CS1T and DS3, *H. pylori*, and *H. mustelae* formed a cluster of organisms with an interspecies similarity level of 94.5%. The phylogenetic positions of *W. succinogenes* and "*F. rappini*" were just outside this cluster. On the basis of the results of this study, we believe that strains CS1T (= ATCC 49179T) and DS3 represent a new species of the genus *Helicobacter*, for which we propose the name *Helicobacter felis*.






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☐ 1: X69080. Reports *H.felis* ureA and ...[gi:396160]

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 ORGANISM *Helicobacter felis*  
 Bacteria; Proteobacteria; Epsilonproteobacteria; Campylobacteriales;  
 Helicobacteraceae; Helicobacter.  
 REFERENCE 1 (bases 1 to 2619)  
 AUTHORS Ferrero,R.L. and Labigne,A.  
 TITLE Cloning, expression and sequencing of *Helicobacter felis* urease  
 genes  
 JOURNAL Mol. Microbiol. 9 (2), 323-333 (1993)  
 PUBMED [8412683](#)  
 REFERENCE 2 (bases 1 to 2619)  
 AUTHORS Ferrero,R.L.  
 TITLE Direct Submission  
 JOURNAL Submitted (02-NOV-1992) R.L. Ferrero, Institut Pasteur, Unite des  
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LDRAAPPVKNCRNITKKDLKFNDVTAHIDVNPETYKVKVDGKEVTSKADELSLAQLY  
NLF"

## ORIGIN

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1021 attgggatta  aagacggcaa  gattgcaggc  attggcaagg  caggcaataa  ggacatgcaa
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1141 ttgattgtaa  ccgctggtgg  catcgatacg  catattcact  ttatctctcc  ccaacaaatc
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2401 aaagtggatg gcaaagaggt aacctctaaa gcagcagatg aattgagcct agcgcaactt
2461 tataatttgt tctaggaggc taaggagggg gatagagggg gttaatttag aggggagtca
2521 ttgatttacc tttgctagtt tataatggat ttaagagagg ttttttttcg tgttttatac
2581 cgcgttgaaa ccctcaaatac tttacaaaaa ggatggtaa
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Oct 4 2005 13:52:42

09342093 PMID: 1704791

Phylogeny of *Helicobacter felis* sp. nov., *Helicobacter mustelae*, and related bacteria.

Paster B J; Lee A; Fox J G; Dewhirst F E; Tordoff L A; Fraser G J; O'Rourke J L; Taylor N S; Ferrero R

Forsyth Dental Center, Boston, Massachusetts 02115.

International journal of systematic bacteriology (UNITED STATES) Jan 1991, 41 (1) p31-8, ISSN 0020-7713 Journal Code: 0042143

Contract/Grant No.: AI-25590; AI; NIAID; AI-25631; AI; NIAID; CA-26731; CA; NCI; +

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

Strain CS1T (T = type strain) is a gram-negative, microaerophilic, urease-positive, spiral-shaped bacterium that was isolated from the gastric mucosa of a cat. Additional strains which possessed biochemical and ultrastructural characteristics similar to those of strain CS1T were isolated from the gastric mucosa of cats and dogs. The guanine-plus-cytosine content of the DNA of strain CS1T was 42.5 mol%. The 16S rRNA sequences of strain CS1T, strain DS3 (a spiral-shaped isolate from a dog), and *Helicobacter mustelae* were determined by direct RNA sequencing, using a modified Sanger method. These sequences were compared with the 16S rRNA sequences of *Helicobacter pylori*, "*Flexispira*

rappini," *Wolinella succinogenes*, and 11 species of campylobacters. A dendrogram was constructed based upon sequence similarities. Strains CS1T and DS3 were very closely related (level of similarity, 99.3%). Two major phylogenetic groups were formed; one group consisted of strains CS1T and DS3, *H. mustelae*, *H. pylori*, "*F. rappini*," and *W. succinogenes*, and the other group contained the true campylobacters. The average level of similarity between members of these two groups was 84.9%. Within the first group, strains CS1T and DS3, *H. pylori*, and *H. mustelae* formed a cluster of organisms with an interspecies similarity level of 94.5%. The phylogenetic positions of *W. succinogenes* and "*F. rappini*" were just outside this cluster. On the basis of the results of this study, we believe that strains CS1T (= ATCC 49179T) and DS3 represent a new species of the genus *Helicobacter*, for which we propose the name *Helicobacter felis*.

Tags: Research Support, U.S. Gov't, P.H.S.



3/6,KWIC/3 (Item 3 from file: 155)  
DIALOG(R)File 155:(c) format only 2005 Dialog. All rts. reserv.

12716380 PMID: 10639446

*Helicobacter felis* infection is associated with lymphoid follicular hyperplasia and mild gastritis but normal gastric secretory function in cats.

Feb 2000

The relationship of *Helicobacter felis*, a bacterium observed in the stomachs of cats, to gastric disease is unclear. The objective of this study was to determine if *H. felis* infection alters gastric histopathology, proinflammatory cytokine expression, and secretory function and evokes a humoral immune response in cats. Five specific-pathogen-free (SPF) *Helicobacter* -free cats were studied before and for 1 year after oral inoculation with *H. felis* (ATCC 49179 ). Four SPF *H. felis* -uninfected cats served as controls. The stomachs of all five *H. felis* -inoculated cats became colonized, as determined by urease activity, histopathology, PCR, culture, and transmission electron...

... of serial gastric biopsies at 0, 3, 5, 8, and 12 months. Uninoculated cats remained *Helicobacter* free. Lymphoid follicular hyperplasia, atrophy, and fibrosis were observed primarily in the pylorus of infected...

SYSTEM:OS - DIALOG OneSearch  
 File 155:MEDLINE(R) 1951-2005/Nov 15  
 (c) format only 2005 Dialog  
 \*File 155: Completed records will cease to update on 16 November. Please  
 see HELP NEWS 154 for details.  
 File 654:US Pat.Full. 1976-2005/Nov 15  
 (c) Format only 2005 Dialog  
 File 349:PCT FULLTEXT 1979-2005/UB=20051110,UT=20051103  
 (c) 2005 WIPO/Univentio  
 File 73:EMBASE 1974-2005/Nov 16  
 (c) 2005 Elsevier Science B.V.  
 File 348:EUROPEAN PATENTS 1978-2005/Nov W01  
 (c) 2005 European Patent Office  
 File 5:Biosis Previews(R) 1969-2005/Nov W1  
 (c) 2005 BIOSIS  
 File 324:German Patents Fulltext 1967-200545  
 (c) 2005 Univentio  
 \*File 324: Search original German text plus English translation.  
 Images now available for 2005. See HELP NEWS 324 for details.  
 File 390:Beilstein Facts 2005/Q2  
 (c) 2005 Beilstein GmbH  
 \*File 390: File has been reloaded. Please see HELP NEWS 390.  
 IMPORTANT - Price based on output. See HELP RATES 390.  
 File 10:AGRICOLA 70-2005/Nov  
 (c) format only 2005 Dialog  
 File 35:Dissertation Abs Online 1861-2005/Oct  
 (c) 2005 ProQuest Info&Learning

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3/9/3 (Item 3 from file: 155)  
 DIALOG(R)File 155:MEDLINE(R)  
 (c) format only 2005 Dialog. All rts. reserv.

12716380 PMID: 10639446

**Helicobacter felis** infection is associated with lymphoid follicular hyperplasia and mild gastritis but normal gastric secretory function in cats.

Simpson K W; Strauss-Ayali D; Scanziani E; Straubinger R K; McDonough P L ; Straubinger A F; Chang Y F; Domeneghini C; Arebi N; Calam J  
 College of Veterinary Medicine, Cornell University, Ithaca, New York 14853, USA. KWS5@cornell.edu

Infection and immunity (UNITED STATES) Feb 2000, 68 (2) p779-90,  
 ISSN 0019-9567 Journal Code: 0246127

Publishing Model Print  
 Document type: Journal Article  
 Languages: ENGLISH  
 Main Citation Owner: NLM  
 Record type: MEDLINE; Completed  
 Subfile: INDEX MEDICUS

The relationship of **Helicobacter felis**, a bacterium observed in the stomachs of cats, to gastric disease is unclear. The objective of this study was to determine if **H. felis** infection alters gastric

histopathology, proinflammatory cytokine expression, and secretory function and evokes a humoral immune response in cats. Five specific-pathogen-free (SPF) *Helicobacter* -free cats were studied before and for 1 year after oral inoculation with *H. felis* (ATCC 49179 ). Four SPF *H. felis* -uninfected cats served as controls. The stomachs of all five *H. felis* -inoculated cats became colonized, as determined by urease activity, histopathology, PCR, culture, and transmission electron microscopy of serial gastric biopsies at 0, 3, 5, 8, and 12 months. Uninoculated cats remained *Helicobacter* free. Lymphoid follicular hyperplasia, atrophy, and fibrosis were observed primarily in the pylorus of infected cats. Mild mononuclear inflammation was detected in both infected and uninfected cats, but was more extensive in infected cats, with pangastric inflammation, eosinophilic infiltrates, and cardia gastritis observed only in infected cats. No upregulation of antral mucosal interleukin 1alpha (IL-1alpha), IL-1beta, or tumor necrosis factor alpha was detected by reverse transcription-PCR in any cat. The gastric secretory axes, assessed by fasting plasma gastrin, antral mucosal gastrin and somatostatin immunoreactivity, and pentagastrin-stimulated gastric acid secretion, were similar in both infected and uninfected cats. Gradual seroconversion (immunoglobulin G) was observed in four of five infected cats, with enzyme-linked immunosorbent assay values reaching 4x to 12x baseline 12 months postinfection. These findings indicate that *H. felis* infection in cats induces lymphoid follicular hyperplasia, mild gastritis, and seroconversion, but is associated with normal gastric secretory function.

Tags: Male; Research Support, Non-U.S. Gov't

Descriptors: \*Gastric Mucosa--pathology--PA; \*Gastritis--etiology--ET; \**Helicobacter* Infections--pathology--PA; \*Lymphoid Tissue--pathology--PA; Animals; Antibodies, Bacterial--blood--BL; Cats; Cytokines--biosynthesis--BI; Gastric Mucosa--secretion--SE; Gastrins--analysis--AN; Hyperplasia; Immunohistochemistry; Polymerase Chain Reaction; Somatostatin--analysis--AN; Urease--metabolism--ME

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Cytokines); 0 (Gastrins); 51110-01-1 (Somatostatin)

Enzyme No.: EC 3.5.1.5 (Urease)

Record Date Created: 20000210

Record Date Completed: 20000210

3/9/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 Dialog. All rts. reserv.

10527842 PMID: 8112850

Immunological and molecular characterization of *Helicobacter felis* urease.

Gootz T D; Perez-Perez G I; Clancy J; Martin B A; Tait-Kamradt A; Blaser M J

Department of Immunology and Infectious Diseases, Central Research Division, Pfizer Inc., Groton, Connecticut 06340.

Infection and immunity (UNITED STATES) Mar 1994, 62 (3) p793-8, ISSN 0019-9567 Journal Code: 0246127

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

Subfile: INDEX MEDICUS

Urease activity has recently been shown to be an important virulence determinant for *Helicobacter pylori*, allowing it to survive the low pH of the stomach during colonization. Experimental murine infection with

*Helicobacter felis* is now being used as a model for *H. pylori* infection to study the effects of vaccines, antibiotics, and urease inhibitors on colonization. However, little information comparing the ureases of *H. felis* and *H. pylori* is available. Urease was partially purified from the cell surface of *H. felis* ATCC 49179 by A-5M agarose chromatography, resulting in an eightfold increase in specific activity over that of crude urease. The apparent Km for urea for the partially purified urease was 0.4 mM, and the enzyme was inhibited in a competitive manner by fluoroamide (50% inhibitory concentration = 0.12 microM). Antiserum to whole cells of *H. pylori* recognized both *H. pylori* and *H. felis* urease B subunits. Antiserum raised against *H. felis* whole cells recognized the large and small autologous urease subunits and the cpn60 heat shock molecule in both *H. felis* and *H. pylori*. However, this antiserum showed only a weak reaction with the B subunit of *H. pylori* urease. Two oligomeric DNA sequences were used as probes to evaluate the relatedness of *H. felis* and *H. pylori* urease gene sequences. One 30-mer from the ureA sequence, which had been shown previously to be specific for *H. pylori*, failed to hybridize to *H. felis* genomic DNA. A probe to the putative coding sequence for the active site of the *H. pylori* ureB subunit hybridized at low intensity to a 2.8-kb fragment of BamHI-HindIII-digested *H. felis* DNA, suggesting that the sequences were homologous but not identical, a result confirmed from the recently published sequences of ureA and ureB from *H. felis*.

Tags: Research Support, U.S. Gov't, Non-P.H.S.

Descriptors: \**Helicobacter*--enzymology--EN; \*Urease--immunology--IM; Base Sequence; Blotting, Southern; Molecular Sequence Data; Molecular Weight; Urease--genetics--GE; Urease--metabolism--ME

Enzyme No.: EC 3.5.1.5 (Urease)

Gene Symbol: ureA; ureB

Record Date Created: 19940330

Record Date Completed: 19940330

3/9/37 (Item 1 from file: 35)

DIALOG(R) File 35:Dissertation Abs Online

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01802879 ORDER NO: AADAA-I0800126

THE BIOLOGY OF PLASMIDS ENDOGENOUS TO *HELICOBACTER* SP. USED IN MOUSE MODELS OF *HELICOBACTER* INFECTION

Author: DE UNGRIA, MARIA CORAZON ABOGADO

Degree: PH.D.

Year: 1999

Corporate Source/Institution: UNIVERSITY OF NEW SOUTH WALES (AUSTRALIA) (0423)

Source: VOLUME 60/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3717.

Descriptors: BIOLOGY, MICROBIOLOGY ; BIOLOGY, MOLECULAR ; BIOLOGY, GENETICS ; HEALTH SCIENCES, PATHOLOGY

Descriptor Codes: 0410; 0307; 0369; 0571

With the impact of *Helicobacter*-associated diseases in the world population, the contribution of extrachromosomal components to the overall biology and evolution of this important bacterial genus needs to be defined. This thesis focused primarily on plasmid pHPs1 of *Helicobacter pylori* Sydney Strain (SS1) and plasmid pHPs1 of *Helicobacter felis* CS1 in order to explore their role in the basic biology of these two *Helicobacter* sp. used in two mouse models of *Helicobacter* infection.

The 5846 bp sequence of plasmid pHPs1 revealed three open reading frames (ORFs) all of which are transcribed, as well as two huge repeats

(R2). Analyses of these sequences led to the identification of two plasmid replication proteins, RepA and RepB, of pHPs1 and the implication of the involvement of ORF2 and R2 in genetic recombination. Comprehensive analysis of the whole genome sequence of *H. pylori* strain 26695 and other *H. pylori* chromosomal and plasmid sequences provided evidence to support the occurrence of plasmid-mediated recombination in *H. pylori*, which is likely to play a crucial role in maintaining the characteristic genome plasticity of this bacterium. Furthermore, amidst the microdiversity observed between different *H. pylori* plasmids, a unifying theme was discerned underlying these sequences which supports the co-evolution of *H. pylori* plasmids and chromosomes from a commensal ancestor to the modern *H. pylori*.

In parallel, the characterisation of plasmids in CS1, including their stability in the mouse model was performed in this present study. Several lines of evidence support the sensitivity of plasmid-host interaction to variations in growth conditions that invariably lead to plasmid instability *in vitro* and *in vivo*. In addition, plasmid-based PCR probes were developed for the molecular detection of the mouse colonising strain of *H. pylori* (SS1) and *H. felis* (CS1) in mouse gastric tissue. Such molecular tools are expected to enhance the utility of two mouse models of infection in characterising the complex processes of *H. pylori* pathogenesis and control *in vivo*.

3/3,KWIC/10 (Item 5 from file: 654)  
 DIALOG(R)File 654:US Pat.Full.  
 (c) Format only 2005 Dialog. All rts. reserv.

4078048 \*\*IMAGE Available  
 Derwent Accession: 1995-006797  
 Utility

C/ Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Inventor: Labigne, Agnes, Bures S/Yvette, FR  
 Suerbaum, Sebastin, Bochum, DE  
 Ferrero, Richard L., Paris, FR  
 Thiberge, Jean-Michel, Plaisir, FR

Assignee: Institut Pasteur(03), Paris, FR  
 Institut National de la Sante et de la Recherche Medicale(03), Paris, FR  
 Institut National de la Sante et de la Recherche Medicale FR  
 Institut Pasteur FR (Code: 42312 42342)

Examiner: Housel, James C. (Art Unit: 182)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5843460	A	19981201	US 95467822	19950606
Continuation	Pending			US 95447177	19950519
CIP	Pending			US 95432697	19950502
Priority				EP 93401309	19930519
				WO 93EP3259	19931119

Fulltext Word Count: 22530

Description of the Invention:

...85P) was a clinical isolate. Labigne et al., J. Bacteriol, 173, 1920-1931 (1991). H. felis (ATCC 49179) was originally isolated from cat gastric mucosa. Lee (1988). Helicobacters were grown on a blood agar medium, containing an antibiotic mixture, and incubated under microaerobic...

3/3,KWIC/13 (Item 3 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00453015

76 kDa, 32 kDa, AND 50 kDa HELICOBACTER POLYPEPTIDES AND CORRESPONDING POLYNUCLEOTIDE MOLECULES

POLYPEPTIDES D'HELICOBACTER DE 76 kDa, 32 kDa ET 50 kDa ET MOLECULES DE POLYNUCLEOTIDES CORRESPONDANTES

Patent Applicant/Assignee:

MERIEUX ORAVAX SOCIETE EN NOM COLLECTIF PASTEUR MERIEUX SERUMS ET VACCINS S A,

HUMAN GENOME SCIENCES INC,

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LISSOLO Ling,

TOMB Jean-Francois,

MILLER Charles,

AL-GARAWI Amal,

Inventor(s):

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LISSOLO Ling,

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AL-GARAWI Amal,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9843479 A1 19981008

Application: WO 98US6421 19980331 (PCT/WO US9806421)

Priority Application: US 97831310 19970401; US 97834666 19970401

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW  
GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD  
TG

Publication Language: English

Fulltext Word Count: 59463

Fulltext Availability:

Detailed Description

Detailed Description

... pylori strain 85P; Ferrero et

al., supra); a UreA-MBP fusion protein (UreA from H. felis strain ATCC

49179; Ferrero et al., supra); a UreB-MBP fusion protein (UreB from H.

felis 15 strain ATCC 49179; Ferrero et al., supra); and a 37 kDa

fragment of UreB

containing amino acids 220...

...Davin et al., "A 37 kD fragment of

UreB is sufficient to confer protection against *Helicobacterfelis* infection in mice"). Finally, Thomas et al. (supra) showed that oral immunization of mice with...

3/3,KWIC/14 (Item 4 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00453014  
IDENTIFICATION OF POLYNUCLEOTIDES ENCODING NOVEL *HELICOBACTER* POLYPEPTIDES  
IN THE *HELICOBACTER* GENOME  
IDENTIFICATION DE POLYNUCLEOTIDES CODANT DE NOUVEAUX POLYPEPTIDES  
*HELICOBACTER* DANS LE GENOME *HELICOBACTER*

Patent Applicant/Assignee:  
MERIEUX ORAVAX SOCIETE EN NOM COLLECTIF PASTEUR MERIEUX SERUMS ET VACCINS  
S A,  
HUMAN GENOME SCIENCE INC,  
KLEANTHOS Harold,  
AL-GARAWI Amal,  
MILLER Charles,  
TOMB Jean-Francois,  
OOMEN Raymond Peter,

Inventor(s):  
KLEANTHOS Harold,  
AL-GARAWI Amal,  
MILLER Charles,  
TOMB Jean-Francois,  
OOMEN Raymond Peter,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9843478 A1 19981008  
Application: WO 98US6371 19980401 (PCT/WO US9806371)  
Priority Application: US 97833457 19970401; US 97881227 19970624; US  
97902615 19970729

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US US US UZ VN YU  
ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE  
SN TD TG

Fulltext Word Count: 811311

Fulltext Availability:  
Detailed Description

Detailed Description

... *H. pylori* strain 85P; Ferrero et al., supra); a UreMBP fusion protein  
(UreA from *H. felis* strain ATCC 49179 ; Ferrero et al.,  
supra); a UreB-MBP fusion protein (UreB from *H. felis* strain ATCC  
49179 ;  
Ferrero et al., supra); and a 37 kDa fragment of UreB containing amino  
acids 220...

...Davin et al., "A 37 kD fragment of UreB is sufficient to confer  
protection against *Helicobacter felis* infection in mice"). Finally,  
Thomas et al

(supra) showed that oral immunization of mice with...

3/3,KWIC/17 (Item 7 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00430761

HELICOBACTER POLYPEPTIDES AND CORRESPONDING POLYNUCLEOTIDE MOLECULES  
POLYPEPTIDES HELICOBACTER ET MOLECULES DE POLYNUCLEOTIDES CORRESPONDANTES

Patent Applicant/Assignee:

MERIEUX ORAVAX SOCIETE EN NOM COLLECTIF PASTEUR MERIEUX SERUMS ET VACCINS  
S A,

MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN E V BERLIN,  
HUMAN GENOME SCIENCES INC,

Inventor(s):

HAAS Rainer,  
KLEANTHOUS Harold,  
TOMB Jean-Francois,  
MILLER Charles,  
AL-GARAWI Amal,  
ODENBREIT Stefan,  
MEYER Thomas,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9821225 A1 19980522

Application: WO 97US21353 19971114 (PCT/WO US9721353)

Priority Application: US 96749051 19961114; US 97831309 19970401; US  
97834705 19970401; US 97833457 19970401; US 97881227 19970624; US  
97902615 19970729

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU  
ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ  
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW  
SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE  
IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 140446

Fulltext Availability:

Detailed Description

Detailed Description

... pylori strain 85P; Ferrero et

al., supra); a UreA-MBP fusion protein (UreA from H. felis strain ATCC

49179 ; Ferrero et al., supra); a UreB-MBP fusion protein (UreB from H.  
felis

strain ATCC 49179 ; Ferrero et al., supra); and a 37 kDa fragment of  
UreB

containing amino acids 220...

...Davin et al., "A 37 kD fragment of

UreB is sufficient to confer protection against Helicobacterfelis  
infection in mice"). Finally, Thomas et al. (supra) showed that oral  
immunization of mice with...

3/3,KWIC/19 (Item 9 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT



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00295942     \*\*Image available\*\*

IMMUNOGENIC COMPOSITIONS AGAINST HELICOBACTER INFECTION, POLYPEPTIDES FOR  
USE IN THE COMPOSITIONS AND NUCLEIC ACID SEQUENCES ENCODING SAID  
POLYPEPTIDES

COMPOSITIONS IMMUNOGENES DIRIGÉES CONTRE LES INFECTIONS PAR HELICOBACTER,  
POLYPEPTIDES UTILISABLES DANS CES COMPOSITIONS, ET SEQUENCES D'ACIDES  
NUCLEIQUES CODANT CES POLYPEPTIDES

Patent Applicant/Assignee:

INSTITUT PASTEUR,

INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE,

Inventor(s):

LABIGNE Agnes,

SUERBAUM Sebastien,

FERRERO Richard,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9514093 A1 19950526

Application: WO 93EP3259 19931119 (PCT/WO EP9303259)

Priority Application: WO 93EP3259 19931119

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

JP

Publication Language: English

Fulltext Word Count: 20709

Fulltext Availability:

Detailed Description

Detailed Description

... absent in the vector controls (pILL570 and pACYC177,  
respectively)

Figure 9

Nucleotide sequence of the *Helicobacter felis* ure  
I gene and deduced amino-acid sequence.

Figure 10 .

Comparison of the amino...

...the ure

I proteins deduced from the nucleotide sequence of the  
ure I gene of *Helicobacter felis* and that of  
*Helicobacter pylori*.

Figure 11 .

Genetic code,

Figure 12

Signification of the one-letter and three-letter  
amino-acid abbreviations.

EXAMPLES

I - CLONING, EXPRESSION AND SEQUENCING OF H, *FELIS*  
UREASE GENE

EXPERIMENTAL PROCEDURES FOR PART I

Bacterial strains and culture conditions

H, *felis* (ATCC 49179 ) was grown on blood agar

base no. 2 (Oxoid) supplemented with 5 % (v/v) lysed...

3/3,KWIC/21 (Item 11 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00261638

PREPARATION FOR THERAPEUTIC AND ESPECIALLY PROPHYLACTIC TREATMENT OF  
DIGESTIVE TRACT DISORDERS  
PREPARATION PERMETTANT D'ASSURER LA THERAPIE ET NOTAMMENT LA PROPHYLAXIE DE  
MALADIES DU TRACTUS DIGESTIF

Patent Applicant/Assignee:

DENECKE Rainer,  
GEBERT Irmingard,

Inventor(s):

DENECKE Rainer,  
GEBERT Irmingard,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9409806 A1 19940511  
Application: WO 93DE1006 19931022 (PCT/WO DE9301006)  
Priority Application: DE 4236469 19921029; DE 4304640 19930216; DE  
4307352 19930309

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AU BB BG BR BY CA CZ FI HU JP KP KR KZ LK LV MG MN MW NO NZ PL RO RU SD  
SK UA US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI  
CM GA GN ML MR NE SN TD TG

Publication Language: German

Fulltext Word Count: 3696

Fulltext Availability:

Detailed Description

Detailed Description

... Organismen derzeit wie in der  
Publikation "An Uncultured Gastric Spiral Organism Is a  
Newly Identified *Helicobacter* in Humans", Jay V.  
Solnick, ...The Journal of  
Infections Diseases, 1993, 168, Seite 379 ff, eingeteilt.  
Folgende Bakterien werden aufgefuehrt:

*Helicobacter felis* DS3

*Helicobacter felis* CS1

(*Gastrospirillum hominis*) 2

(*Gastrospirillum hominis*) 1

*Helicobacter pylori*

*Helicobacter acinonyx*

Ersatzblatt

- 8

- *Helicobacter* sp. CL03

*Helicobacter mustelae*

*Helicobacter fennelliae*

- *Helicobacter muridarum*

*Helicobacter cinaedi*

(*Flexispira rappini*)

*Wolinella succinogenes*

- *Campylobacter fetus* ss *fetus*

*Campylobacter largi*

- *Campylobacter coli*

- *Campylobacter jejuni*...

3/3,KWIC/32 (Item 3 from file: 324)  
DIALOG(R)File 324:German Patents Fulltext  
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0003136786

Preparation combination to the therapy and prophylaxis of illnesses of the digestive tract

Präparatkombination zur Therapie und Prophylaxe von Erkrankungen des Verdauungstraktes

Patent Applicant/Assignee:

Denecke Rainer, Dr.med.vet.,20149 Hamburg, DE

Inventor(s):

Denecke Rainer, Dr.med.vet.,20149 Hamburg, DE

Patent and Priority Information (Country, Number, Date):

Patent: DE 4432262 A1 19950720

Application: DE 4432262 19940910

Priority Application: DE 4400736 19940113; DE 4403106 19940202; DE 4432262 19940910 (DE 4400736; DE 4403106; DE 4432262)

Publication Language: German

Fulltext Word Count (English): 3651

Fulltext Word Count (German) : 3193

Fulltext Word Count (Both) : 6844

Fulltext Availability:

Description (English machine translation)

Description (German)

Description (English machine translation)

... present as in the publication "at Uncultured Gastric spiral 45 Organism Is A Newly Identified *Helicobacter* in Humans", Jay V. Solnick, Jani O'Rourke, Adrian Lee, Bruce J. Paster, Floyd E...

...The journal OF Infections Diseases, 1993, 168, page 379 ff.

The following bacteria are aufgeföhrt: *Helicobacter canis*- *Helicobacter felis* DS3- *Helicobacter felis* CS1 *Helicobacter*

*pylori* *Helicobacter acinonyx* *Helicobacter frame* CL03 *Helicobacter mustelae* *Helicobacter muridarum* *Helicobacter cinaedi* (*Flexispira rappini*) *Wolinella* of *succinogenes* *Campylobacter fetus* ss *fetus* *Campylobacter largi* *Campylobacter coli* *Campylobacter*...

Description (German)

... derzeit wie in der Publikation "An Uncultured Gastric Spiral 45 Organism Is a Newly Identified *Helicobacter* in Humans", Jay V. Solnick, Jani O'Rourke, Adrian Lee, Bruce J. Paster, Floyd E...

...The Journal of Infections Diseases, 1993, 168, Seite 379 ff, eingeteilt.

Folgende Bakterien werden aufgeföhrt: *Helicobacter canis*- *Helicobacter felis* DS3- *Helicobacter felis* CS1 *Helicobacter pylori* *Helicobacter acinonyx* *Helicobacter sp.* CL03 *Helicobacter mustelae* *Helicobacter muridarum* *Helicobacter cinaedi* (*Flexispira rappini*) *Wolinella succinogenes* *Campylobacter fetus* ss *fetus* *Campylobacter largi* *Campylobacter coli* *Campylobacter jejuni*...

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File 155:MEDLINE(R) 1951-2005/Nov 15

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\*File 155: Completed records will cease to update on 16 November. Please see HELP NEWS 154 for details.

File 654:US Pat.Full. 1976-2005/Nov 15

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File 349:PCT FULLTEXT 1979-2005/UB=20051110,UT=20051103

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File 73:EMBASE 1974-2005/Nov 16

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File 348:EUROPEAN PATENTS 1978-2005/Nov W01

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File 5:Biosis Previews(R) 1969-2005/Nov W1

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File 324:German Patents Fulltext 1967-200545

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\*File 324: Search original German text plus English translation.

Images now available for 2005. See HELP NEWS 324 for details.

File 390:Beilstein Facts 2005/Q2

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IMPORTANT - Price based on output. See HELP RATES 390.

File 10:AGRICOLA 70-2005/Nov

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File 35:Dissertation Abs Online 1861-2005/Oct

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3/3,KWIC/7 (Item 2 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2005 Dialog. All rts. reserv.

4394675

Derwent Accession: 1995-082032

Utility

C/ Treatment of H. pylori associated gastroduodenal disease

Inventor: Doidge, Christopher Vincent, Box Hill, AU

Lee, Adrian, Lane Cove, AU

Assignee: CSL Limited(03), Parkville Vic, AU

The University of New South Wales(03), Kensington NSW, AU

CSL Ltd AU

New South Wales, University of AU (Code: 40730 48775)

Examiner: Housel, James C. (Art Unit: 161)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Foley & Lardner

	Publication Number	Kind	Date	Application Number	Filing Date
	-----	--	-----	-----	-----
Main Patent	US 6129923	A	20001010	US 98182062	19981029
Continuation	Pending			US 464854	
Priority				AU 9315793	19930727

Fulltext Word Count: 3959

Description of the Invention:

...Australia, were infected with four oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given two days apart ...

...New South Wales, Australia, were infected with 3 oral doses of 10<sup>8</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart, i.e. days 1, 3 and 5...

...Australia, were infected with 4 oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart. 20 female SPF mice were left uninfected, as negative controls...

3/3,KWIC/9 (Item 4 from file: 654)

DIALOG(R) File 654:US Pat.Full.

(c) Format only 2005 Dialog. All rts. reserv.

4109876

Derwent Accession: 1995-082032

Utility

C/ Therapeutic treatment of *H. pylori* associated gastroduodenal disease ; MUCOSAL ADMINISTRATION OF ANTIGEN AND ADJUVANTS; VACCINES

Inventor: Doidge, Christopher Vincent, Box Hill, AU

Lee, Adrian, Lane Cove, AU

Assignee: CSL Limited(03), Parkville, AU

The Univ. of New South Wales(03), New South Wales, AU

CSL Ltd AU

New South Wales, University of AU (Code: 40730 48775)

Examiner: Housel, James C. (Art Unit: 161)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Foley & Lardner

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5871749	A	19990216	US 95464854	19950818
PCT	WO 9503824		19950209	WO 94AU416	19940725
			371:19950818		
			102e:19950818		
Priority				AU 93157	19930727
				AU 943828	19940214

Fulltext Word Count: 4346

Description of the Invention:

...Australia, were infected with four oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given two days apart ...

...New South Wales, Australia, were infected with 3 oral doses of 10<sup>8</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart, i.e. days 1, 3 and 5...

...Australia, were infected with 4 oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart. 20 female SPF mice were left uninfected, as negative controls...

3/3,KWIC/10 (Item 5 from file: 654)  
DIALOG(R)File 654:US Pat.Full.  
(c) Format only 2005 Dialog. All rts. reserv.

4078048 \*\*IMAGE Available  
Derwent Accession: 1995-006797  
Utility

C/ Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Inventor: Labigne, Agnes, Bures S/Yvette, FR  
Suerbaum, Sebastin, Bochum, DE  
Ferrero, Richard L., Paris, FR  
Thiberge, Jean-Michel, Plaisir, FR  
Assignee: Institut Pasteur(03), Paris, FR  
Institut National de la Sante et de la Recherche Medicale(03), Paris, FR  
Institut National de la Sante et de la Recherche Medicale FR  
Institut Pasteur FR (Code: 42312 42342)  
Examiner: Housel, James C. (Art Unit: 182)  
Assistant Examiner: Portner, Ginny Allen  
Law Firm: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5843460	A	19981201	US 95467822	19950606
Continuation	Pending			US 95447177	19950519
CIP	Pending			US 95432697	19950502
Priority				EP 93401309	19930519
				WO 93EP3259	19931119

Fulltext Word Count: 22530

Description of the Invention:

...85P) was a clinical isolate. Labigne et al., J. Bacteriol, 173, 1920-1931 (1991). *H. felis* (ATCC 49179 ) was originally isolated from cat gastric mucosa. Lee (1988). *Helicobacters* were grown on a blood agar medium, containing an antibiotic mixture, and incubated under microaerobic...

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<b>ATCC® Number:</b> 49179™	<b>Order this item</b> <b>Price:</b> \$160.00
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<b>Depositors:</b>	A Lee
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<b><a href="#">Related Products</a></b>	
<b>Cross Reference:</b>	GenBank: M57398: <i>Helicobacter felis</i> 16S rRNA. GenBank: X69080: <i>H. felis</i> ureA and ureB genes. GenBank: AJ001932: <i>Helicobacter felis</i> ftsH, copA, copP genes and two ORF's.
<b>Type Strain:</b>	yes
<b>References:</b>	<a href="#">6952</a> : Paster BJ, et al. Phylogeny of <i>Helicobacter felis</i> sp. nov., <i>Helicobacter mustelae</i> , and related bacteria. Int. J. Syst. Bacteriol. 41: 31-38, 1991. PubMed: <a href="#">1704791</a> <a href="#">10239</a> : Lee A, et al. Isolation of a spiral-shaped bacterium from the cat stomach. Infect. Immun. 56: 2843-2850, 1988. PubMed: <a href="#">3169989</a> <a href="#">32444</a> : Melchers K, et al. Cloning and membrane topology of a P type ATPase from <i>Helicobacter pylori</i> . J. Biol. Chem. 271: 446-457, 1996. PubMed: <a href="#">8550601</a> <a href="#">32614</a> : Mendes EN, et al. <i>Helicobacter troglodytes</i> sp. nov., isolated from the rat intestine. Int. J. Syst. Bacteriol. 46: 916-921, 1996. PubMed: <a href="#">8863417</a>

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$2.30   1 Types
$2.31  Estimated cost File35
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$0.26  TELNET
$20.23  Estimated cost this search
$20.23  Estimated total session cost   1.425 DialUnits

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\*File 155: Completed records will cease to update on 16 November. Please see HELP NEWS 154 for details.

File 654:US Pat.Full. 1976-2005/Nov 15

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\*File 390: File has been reloaded. Please see HELP NEWS 390.  
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File 35:Dissertation Abs Online 1861-2005/Oct  
(c) 2005 ProQuest Info&Learning

078048 \*\*IMAGE Available

Derwent Accession: 1995-006797

Utility

C/ Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Inventor: Labigne, Agnes, Bures S/Yvette, FR

Suerbaum, Sebastin, Bochum, DE

Ferrero, Richard L., Paris, FR

Thiberge, Jean-Michel, Plaisir, FR

Assignee: Institut Pasteur(03), Paris, FR

Institut National de la Sante et de la Recherche Medicale(03),  
Paris, FR

Institut National de la Sante et de la Recherche Medicale FR

Institut Pasteur FR (Code: 42312 42342)

Examiner: Housel, James C. (Art Unit: 182)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

	Publication Number	Kind	Date	Application Number	Filing Date
	-----	--	----	-----	-----
Main Patent	US 5843460	A	19981201	US 95467822	19950606
Continuation	Pending			US 95447177	19950519
CIP	Pending			US 95432697	19950502
Priority				EP 93401309	19930519
				WO 93EP3259	19931119

Fulltext Word Count: 22530

Description of the Invention:

...85P) was a clinical isolate. Labigne et al., J. Bacteriol, 173, 1920-1931 (1991). H. felis (ATCC 49179 ) was originally isolated from cat gastric mucosa. Lee (1988). Helicobacters were grown on a blood agar medium, containing an antibiotic mixture, and incubated under microaerobic...

00453015

76 kDa, 32 kDa, AND 50 kDa *HELICOBACTER* POLYPEPTIDES AND CORRESPONDING  
POLYNUCLEOTIDE MOLECULES  
POLYPEPTIDES D'*HELICOBACTER* DE 76 kDa, 32 kDa ET 50 kDa ET MOLECULES DE  
POLYNUCLEOTIDES CORRESPONDANTES

Patent Applicant/Assignee:

MERIEUX ORAVAX SOCIETE EN NOM COLLECTIF PASTEUR MERIEUX SERUMS ET VACCINS  
S A,  
HUMAN GENOME SCIENCES INC,  
KLEANTHOU Harold,  
LISSOLO Ling,  
TOMB Jean-Francois,  
MILLER Charles,  
AL-GARAWI Amal,

Inventor(s):

KLEANTHOU Harold,  
LISSOLO Ling,  
TOMB Jean-Francois,  
MILLER Charles,  
AL-GARAWI Amal,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9843479 A1 19981008  
Application: WO 98US6421 19980331 (PCT/WO US9806421)  
Priority Application: US 97831310 19970401; US 97834666 19970401

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US US UZ VN YU ZW  
GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES  
FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD  
TG

Publication Language: English

Fulltext Word Count: 59463

Fulltext Availability:

Detailed Description

Detailed Description

... pylori strain 85P; Ferrero et  
al., supra); a UreA-MBP fusion protein (UreA from *H. felis* strain ATCC  
49179 ; Ferrero et al., supra); a UreB-MBP fusion protein (UreB from *H.*  
*felis* 15 strain ATCC 49179 ; Ferrero et al., supra); and a 37 kDa  
fragment of UreB  
containing amino acids 220...

...Davin et al., "A 37 kD fragment of  
UreB is sufficient to confer protection against *Helicobacterfelis*  
infection in mice"). Finally, Thomas et al. (supra) showed that oral  
immunization of mice with...

3/3,KWIC/14 (Item 4 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00453014

IDENTIFICATION OF POLYNUCLEOTIDES ENCODING NOVEL HELICOBACTER POLYPEPTIDES  
IN THE HELICOBACTER GENOME

IDENTIFICATION DE POLYNUCLEOTIDES CODANT DE NOUVEAUX POLYPEPTIDES  
HELICOBACTER DANS LE GENOME HELICOBACTER

Patent Applicant/Assignee:

MERIEUX ORAVAX SOCIETE EN NOM COLLECTIF PASTEUR MERIEUX SERUMS ET VACCINS  
S A,  
HUMAN GENOME SCIENCE INC,  
KLEANTHOUS Harold,  
AL-GARAWI Amal,  
MILLER Charles,  
TOMB Jean-Francois,  
OOMEN Raymond Peter,

Inventor(s):

KLEANTHOUS Harold,  
AL-GARAWI Amal,  
MILLER Charles,  
TOMB Jean-Francois,  
OOMEN Raymond Peter,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9843478 A1 19981008  
Application: WO 98US6371 19980401 (PCT/WO US9806371)  
Priority Application: US 97833457 19970401; US 97881227 19970624; US  
97902615 19970729

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM  
GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX  
NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US US US UZ VN YU  
ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE  
SN TD TG

Fulltext Word Count: 811311

Fulltext Availability:

Detailed Description

Detailed Description

... H. pylori strain 85P; Ferrero et al., supra); a UreAMBP fusion protein  
(UreA from H. felis strain ATCC 49179 ; Ferrero et al.,  
supra); a UreB-MBP fusion protein (UreB from H. felis strain ATCC  
49179 ;  
Ferrero et al., supra); and a 37 kDa fragment of UreB containing amino  
acids 220...

...Davin et al., "A 37 kD fragment of UreB is sufficient to confer  
protection against Helicobacter felis infection in mice"). Finally,  
Thomas et al

(supra) showed that oral immunization of mice with...

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ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE  
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(UreA from *H. felis* strain ATCC 49179 ; Ferrero et al.,  
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...Davin et al., "A 37 kD fragment of UreB is sufficient to confer  
protection against *Helicobacter felis* infection in mice"). Finally,  
Thomas et al

(supra) showed that oral immunization of mice with...

00295942      \*\*Image available\*\*

IMMUNOGENIC COMPOSITIONS AGAINST HELICOBACTER INFECTION, POLYPEPTIDES FOR  
USE IN THE COMPOSITIONS AND NUCLEIC ACID SEQUENCES ENCODING SAID  
POLYPEPTIDES

COMPOSITIONS IMMUNOGENES DIRIGÉES CONTRE LES INFECTIONS PAR HELICOBACTER,  
POLYPEPTIDES UTILISABLES DANS CES COMPOSITIONS, ET SEQUENCES D'ACIDES  
NUCLEIQUES CODANT CES POLYPEPTIDES

Patent Applicant/Assignee:

INSTITUT PASTEUR,

INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE,

Inventor(s):

LABIGNE Agnes,

SUERBAUM Sebastien,

FERRERO Richard,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9514093 A1 19950526

Application: WO 93EP3259 19931119 (PCT/WO EP9303259)

Priority Application: WO 93EP3259 19931119

Designated States:

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

JP

Publication Language: English

Fulltext Word Count: 20709

Fulltext Availability:

Detailed Description

Detailed Description

... absent in the vector controls (pILL570 and pACYC177,  
respectively)

Figure 9

Nucleotide sequence of the *Helicobacter felis* ure  
I gene and deduced amino-acid sequence.

Figure 10 .

Comparison of the amino...

...the ure

I proteins deduced from the nucleotide sequence of the  
ure I gene of *Helicobacter felis* and that of  
*Helicobacter pylori*.

Figure 11 .

Genetic code,

Figure 12

Signification of the one-letter and three-letter  
amino-acid abbreviations.

EXAMPLES

I - CLONING, EXPRESSION AND SEQUENCING OF H, FELIS  
UREASE GENE

EXPERIMENTAL PROCEDURES FOR PART I

Bacterial strains and culture conditions

H, *felis* (ATCC 49179 ) was grown on blood agar

base no. 2 (Oxoid) supplemented with 5 % (v/v) lysed...

394675

Derwent Accession: 1995-082032

Utility

C/ Treatment of H. pylori associated gastroduodenal disease

Inventor: Doidge, Christopher Vincent, Box Hill, AU

Lee, Adrian, Lane Cove, AU

Assignee: CSL Limited(03), Parkville Vic, AU

The University of New South Wales(03), Kensington NSW, AU

CSL Ltd AU

New South Wales, University of AU (Code: 40730 48775)

Examiner: Housel, James C. (Art Unit: 161)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Foley & Lardner

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 6129923	A	20001010	US 98182062	19981029
Continuation	Pending			US 464854	
Priority				AU 9315793	19930727
				AU 94382894	19940214

Fulltext Word Count: 3959

Description of the Invention:

...Australia, were infected with four oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given two days apart  
...

...New South Wales, Australia, were infected with 3 oral doses of 10<sup>8</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart, i.e. days 1, 3 and 5...

...Australia, were infected with 4 oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart. 20 female SPF mice were left uninfected, as negative controls...

3/3,KWIC/9 (Item 4 from file: 654)

DIALOG(R)File 654:US Pat.Full.

(c) Format only 2005 Dialog. All rts. reserv.

4109876

Derwent Accession: 1995-082032

Utility

C/ Therapeutic treatment of H. pylori associated gastroduodenal disease  
; MUCOSAL ADMINISTRATION OF ANTIGEN AND ADJUVANTS; VACCINES

Inventor: Doidge, Christopher Vincent, Box Hill, AU

Lee, Adrian, Lane Cove, AU

Assignee: CSL Limited(03), Parkville, AU

The Univ. of New South Wales(03), New South Wales, AU

CSL Ltd AU

New South Wales, University of AU (Code: 40730 48775)

Examiner: Housel, James C. (Art Unit: 161)

Assistant Examiner: Portner, Ginny Allen

Law Firm: Foley & Lardner

Publication Number	Kind	Date	Application Number	Filing Date
-----------------------	------	------	-----------------------	----------------



Main Patent	US 5871749	A	19990216	US 95464854	19950818
PCT	WO 9503824		19950209	WO 94AU416	19940725
			371:19950818		
			102e:19950818		
Priority				AU 93157	19930727
				AU 943828	19940214

Fulltext Word Count: 4346

Description of the Invention:

...Australia, were infected with four oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given two days apart  
...

...New South Wales, Australia, were infected with 3 oral doses of 10<sup>8</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart, i.e. days 1, 3 and 5...

...Australia, were infected with 4 oral doses of 10<sup>9</sup> -10<sup>10</sup> living *Helicobacter felis* (ATCC culture 49179 ) given 2 days apart. 20 female SPF mice were left uninfected, as negative controls...

3/3,KWIC/10 (Item 5 from file: 654)  
DIALOG(R)File 654:US Pat.Full.  
(c) Format only 2005 Dialog. All rts. reserv.

4078048 \*\*IMAGE Available  
Derwent Accession: 1995-006797  
Utility

C/ Immunogenic compositions against helicobacter infection, polypeptides for use in the compositions, and nucleic acid sequences encoding said polypeptides

Inventor: Labigne, Agnes, Bures S/Yvette, FR  
Suerbaum, Sebastin, Bochum, DE  
Ferrero, Richard L., Paris, FR  
Thiberge, Jean-Michel, Plaisir, FR  
Assignee: Institut Pasteur(03), Paris, FR  
Institut National de la Sante et de la Recherche Medicale(03), Paris, FR  
Institut National de la Sante et de la Recherche Medicale FR  
Institut Pasteur FR (Code: 42312 42342)  
Examiner: Housel, James C. (Art Unit: 182)  
Assistant Examiner: Portner, Ginny Allen  
Law Firm: Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5843460	A	19981201	US 95467822	19950606
Continuation	Pending			US 95447177	19950519
CIP	Pending			US 95432697	19950502
Priority				EP 93401309	19930519
				WO 93EP3259	19931119

Fulltext Word Count: 22530

Description of the Invention:

...85P) was a clinical isolate. Labigne et al., J. Bacteriol, 173, 1920-1931 (1991). *H. felis* (ATCC 49179 ) was originally isolated from cat gastric mucosa. Lee (1988). *Helicobacters* were grown on a blood agar medium, containing an antibiotic mixture, and incubated under microaerobic...

? logoff hold

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16nov05 14:29:01 User228206 Session D2538.9
$0.03      0.009 DialUnits File155
$0.03 Estimated cost File155
$2.26      0.383 DialUnits File654
$2.10      3 Type(s) in Format 3
$2.10      3 Types
$4.36 Estimated cost File654
$0.04      0.009 DialUnits File349
$0.04 Estimated cost File349
$0.10      0.009 DialUnits File73
$0.10 Estimated cost File73
$0.05      0.009 DialUnits File348
$0.05 Estimated cost File348
$0.06      0.009 DialUnits File5
$0.06 Estimated cost File5
$0.05      0.009 DialUnits File324
$0.05 Estimated cost File324
$0.00      0.009 DialUnits File390
$0.00 Estimated cost File390
$0.03      0.009 DialUnits File10
$0.03 Estimated cost File10
$0.04      0.009 DialUnits File35
$0.04 Estimated cost File35
OneSearch, 10 files, 0.467 DialUnits FileOS
$0.26 TELNET
$5.02 Estimated cost this search
$5.02 Estimated total session cost 0.467 DialUnits
```

Logoff: level 05.08.03 D 14:29:02

You are now logged off

0003136786

Preparation combination to the therapy and prophylaxis of illnesses of the digestive tract

Präparatkombination zur Therapie und Prophylaxe von Erkrankungen des Verdauungstraktes

Patent Applicant/Assignee:

Denecke Rainer, Dr.med.vet.,20149 Hamburg, DE

Inventor(s):

Denecke Rainer, Dr.med.vet.,20149 Hamburg, DE

Patent and Priority Information (Country, Number, Date):

Patent: DE 4432262 A1 19950720

Application: DE 4432262 19940910

Priority Application: DE 4400736 19940113; DE 4403106 19940202; DE

4432262 19940910 (DE 4400736; DE 4403106; DE 4432262)

Publication Language: German

Fulltext Word Count (English): 3651

Fulltext Word Count (German) : 3193

Fulltext Word Count (Both) : 6844

Fulltext Availability:

Description (English machine translation)

Description (German)

Description (English machine translation)

... present as in the publication "at Uncultured Gastric spiral 45 Organism Is A Newly Identified *Helicobacter* in Humans", Jay V. Solnick, Jani O'Rourke, Adrian Lee, Bruce J. Paster, Floyd E...

...The journal OF Infections Diseases, 1993, 168, page 379 FF.

The following bacteria are aufgeföhrt: *Helicobacter*

*canis- Helicobacter felis* DS3- *Helicobacter felis* CS1

*Helicobacter*

*pylori Helicobacter acinonyx Helicobacter frame* CL03 *Helicobacter*

*mustelae Helicobacter muridarum Helicobacter cinaedi* (Flexispira

*rappini*) *Wolinella* of *succinogenes Campylobacter fetus* ss *fetus*

*Campylobacter largi Campylobacter coli Campylobacter*...

Description (German)

... derzeit wie in der Publikation "An Uncultured Gastric Spiral 45 Organism Is a Newly Identified *Helicobacter* in Humans", Jay V. Solnick, Jani O'Rourke, Adrian Lee, Bruce J. Paster, Floyd E...

...The Journal of Infections Diseases, 1993, 168, Seite 379 ff, eingeteilt.

Folgende Bakterien werden aufgeföhrt: *Helicobacter canis- Helicobacter*

*felis* DS3- *Helicobacter felis* CS1 *Helicobacter pylori*

*Helicobacter acinonyx Helicobacter sp.* CL03 *Helicobacter mustelae*

*Helicobacter muridarum Helicobacter cinaedi* (Flexispira *rappini*)

*Wolinella succinogenes Campylobacter fetus* ss *fetus Campylobacter largi*

*Campylobacter coli Campylobacter jejuni*...

? logoff hold

16nov05 14:26:21 User228206 Session D2538.8

\$0.02 0.006 DialUnits File155

\$0.44 2 Type(s) in Format 9

\$0.44 2 Types

\$0.46 Estimated cost File155

\$0.28 0.048 DialUnits File654

\$0.70 1 Type(s) in Format 3

ds

Set	Items	Description
S1	73	HELICOBACTER? (25N) FELIS? (25N) (CS1 OR CS-1 OR CS1T OR 4-9179 OR 49179T OR ATCC49179 OR TACC49179T)
S2	36	S1/2001:2005
S3	37	S1 NOT S2
?		
? t s3/6,kwic/all		

SEQ 3<sup>a</sup>-aa1-568

SEQ 1: Na AT-2688 friends P  
2433

1-205/250/was<sup>®</sup>g') Non-coding  
B' flag



# **STIC Search Report**

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**Wednesday, February 16, 2005**  
  
**Case Serial Number: 09/904994**

**From: Mary Jane Ruhl**  
**Location: Biotech-Chem Library**  
**Remsen 1-A-62**  
**Phone: 571-272-2524**  
  
**maryjane.ruhl@uspto.gov**

### **Search Notes**

Examiner Portner,

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Please feel free to contact me if you have any questions about these results.

Thank you for using STIC services. We appreciate the opportunity to serve you.

Sincerely,

Mary Jane Ruhl  
Technical Information Specialist  
STIC  
Remsen 1-A-62  
Ext. 22524